

CLAIMS

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1. A polymer electrolyte, comprising: a vinylidene fluoride copolymer and a nonaqueous electrolytic solution, wherein the vinylidene fluoride  
5 copolymer comprises 80 to 97 wt. % of vinylidene fluoride monomer units and 3 to 20 wt. % of units of at least one monomer copolymerizable with vinylidene fluoride monomer and has an inherent viscosity of 1.5 to 10 dl/g.

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2. A polymer electrolyte according to Claim 1, wherein said at least one monomer copolymerizable with vinylidene fluoride comprises a mixture of hexafluoropropylene monomer and trifluorochloro-  
15 ethylene monomer.

3. A polymer electrolyte according to Claim 1, wherein the vinylidene fluoride copolymer has been obtained by charging the monomers simultaneously and  
20 then polymerizing the monomers.

4. A polymer electrolyte according to Claim 1, wherein said vinylidene fluoride copolymer has an abnormal linkage content of at least 3 % at vinylidene  
25 fluoride sites.

5. A polymer electrolyte according to Claim 1,

which contains 50 - 85 wt. % of the nonaqueous electrolytic solution.

6. A polymer electrolyte according to Claim 1,  
5 wherein the vinylidene fluoride copolymer forming the polymer electrolyte is crosslinked.

pp B2 7. A polymer electrolyte according to Claim 4,  
wherein the vinylidene fluoride copolymer is  
10 crosslinked in the presence of a crosslinking agent selected from polyamines, polyols and polymerizable crosslinking agents having an unsaturated bond, and a radical generating agent.

15 8. A polymer electrolyte according to Claim 4, wherein the vinylidene fluoride copolymer is crosslinked by irradiation with electron rays or gamma rays.

20 pp B3 9. A nonaqueous battery, comprising: a positive electrode comprising a positive electrode material capable of being doped with and liberating lithium, a negative electrode comprising a negative electrode material similarly capable of being doped with and  
25 liberating lithium or metallic lithium, and a polymer electrolyte according to any of Claims 1 - 8 between the positive electrode and the negative electrode.

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